

# CRATE

## *GFX-20*

### *GUITAR AMPLIFIER WITH DIGITAL SIGNAL PROCESSING*



## **OWNER'S MANUAL**

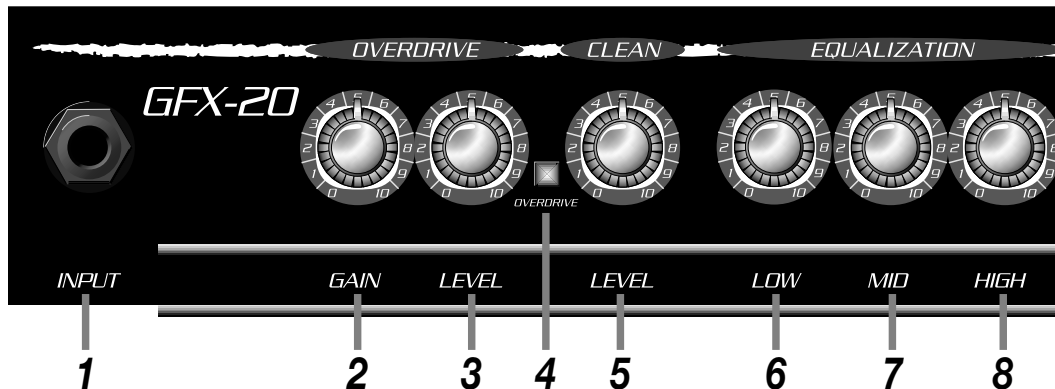
### **Congratulations!**

You are now the proud owner of the Crate GFX-20 guitar amplifier. This small but versatile amplifier features two separate channels – one crystal clear and the other with our patented “Flex-Wave” distortion – combined with a three-band EQ and an easy to operate DSP section which lets you dial in a variety of digital effects such as delay, flange, chorus and reverb. A special damping circuit simulates the “current source” type output of a tube amp, giving you solid state reliability combined with classic tube sounds.

Your GFX-20 is Musician Made in the U.S.A., using only the best components. Extensive testing at the hands (and ears) of skilled technicians and musicians insures you that this amplifier is the absolute best it can be.

In order to get the most out of your new amplifier, we strongly urge you to go over the information contained in this manual before you begin playing.

And ***thank you*** for choosing **CRATE®**



**1: INPUT:** Connect your guitar here using a shielded instrument cable.

**OVERDRIVE CHANNEL:** A high gain channel giving you sounds from a slight edge to serious overdrive.

**2: GAIN:** This control sets the amount of compression and distortion from the amplifier. With the control towards far left, the sound will have a thick compressed quality. As you turn the control to the right the amount of distortion increases. Crate's exclusive "Flex-Wave" circuitry uses sequential cascading gains to deliver distortion which is rich in harmonics and "touch sensitive." Use this control along with the Level (#3) to create a wide variety of sounds.

**3: LEVEL:** This control sets the output volume level from the Overdrive channel: in the far left position there will be no output; as you turn the control to the right the output increases. Use this control along with the Gain control (#2) to create a wide variety of sounds.

**4: OVERDRIVE SELECT:** When this push-button switch is pressed in the Overdrive channel is engaged. The clean channel is selected when this switch is out.

**CLEAN CHANNEL:** A normal gain channel designed to give you crystal clear sounds to medium distortion.

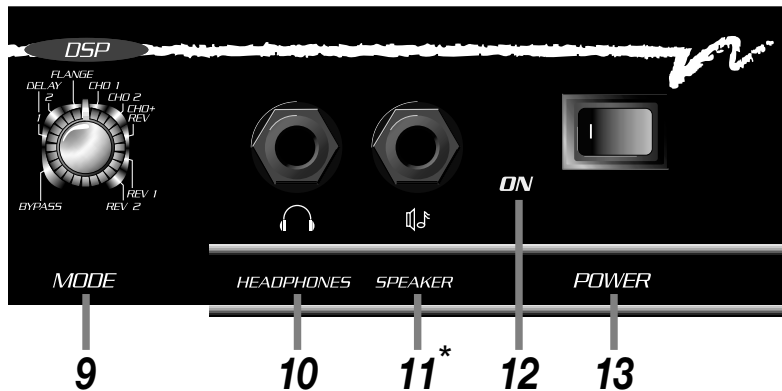
**5: LEVEL:** This control sets the output volume level from the Clean channel: in the far-left position there will be no output; as you turn the control to the right the output level increases. The far right setting is maximum output - as you increase the level, roll back the Low control (#6).

#### EQUALIZATION

**6: LOW:** Adjust the low frequency output level with this control: turning the control to the left reduces the low frequency output; turning it to the right increases the low frequency output. The Low control allows a total range of 25dB of boost or cut at 80Hz. Due to the massive amount of low end available, you may want to "roll off" the bass at high volumes.

**7: MID:** Adjust the mid frequency output level with this control: the center position is "flat" (no boost or cut). Turning the control to the left reduces the midrange output; turning it to the right increases the midrange output. The Mid control allows for 19dB of boost or cut at 900Hz.

**8: HIGH:** Adjust the high frequency output level with this control: in the center position the high frequency output will be "flat" (no boost or cut). Turning the control to the left reduces the high frequency output; turning it to the right increases the high frequency output. The High control allows a total range of 23dB of boost or cut at 5kHz.



**9: DSP MODE:** Select the type of digital effect(s) desired with this control. Each category and its central location is called out (delay, flange, etc.) by the markings around the control, with variations, as follows:

- Bypass (DSP off)
- Slapback delay
- Long delay w/regeneration
- Flange
- Slow Chorus
- Fast Chorus
- Chorus w/small room reverb
- Small room reverb
- Large room reverb

**10: HEADPHONES:** For private practice sessions, plug a pair of stereo headphones into this jack. The internal speaker is disconnected whenever headphones are being used.

**11: EXTERNAL SPEAKER\*:** You may connect the GFX-20 to an external speaker with a rated impedance of at least 4 ohms using this jack. The internal speaker is disconnected whenever an external speaker is used.

**12: ON LED:** The word “ON” will glow when you turn on the GFX-20, showing you that the amplifier is activated and ready to play.

**13: POWER:** This heavy-duty rocker-type switch is used to turn the amplifier ON in the left position, off in the right position. The ON LED (#12) works with this switch as a visual indicator.

**14: POWER CORD:** (Rear panel, not shown: This heavy-duty, grounded, three-wire power cord is to be plugged into ONLY a safely-wired, grounded 120 volt, 60 cycle AC power outlet. DO NOT attempt to defeat the ground connection of this cable! If your GFX-20 was purchased outside the United States, see the unit’s rear panel for its power rating and follow the above guidelines.






**\*WARNING:**  
DO NOT attempt to use headphones in the Speaker jack! Permanent hearing damage could result!

# CRATE<sup>®</sup> GFX-20 Amplifier

## GFX-20 TECHNICAL SPECIFICATIONS

Output Power Rating	>20 watts RMS @ 5% THD 4 ohms, 120VAC
Gain, Overdrive Channel	86dB +/-6dB @ 1kHz
Gain, Clean Channel	46dB +/-6dB @ 1kHz
Tone Control Range, Low	25dB @ 80Hz
Tone Control Range, Mid	19dB @ 900Hz
Tone Control Range, High	23dB @ 5kHz
Signal To Noise, Overdrive Channel	>50dB
Signal To Noise, Clean Channel	>65dB
Maximum Signal Accepted	>1.2 volts RMS min. @ 400Hz
Internal Speaker	10" Crate Custom Design 4 ohm
Input Power Requirements	120 VAC, 60Hz, 20VA 100/115VAC, 50/60Hz, 20VA 230VAC, 50/60Hz, 20VA
Size and Weight:	15" H x 16.75" W x 9.5" D, 21 lbs.

The GFX-20 is covered with a durable black Tolex material: wipe it clean with a lint-free cloth. Never spray cleaning agents onto the cabinet. Avoid abrasive cleansers which could damage the finish.

 <b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	 <b>PRECAUCION</b> RIESGO DE CORRIENTAZO NO ABRA	 <b>ATTENTION</b> RISQUE D'ELECTROCUTION NE PAS OUVRIR
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	PRECAUCION: PARA REDUCIR EL RIESGO DE INCENDIOS O DESCARGAS ELECTRICAS, NO PERMITA QUE ESTE APARATO QUEDE EXPUESTO A LA LLUVIA O LA HUMEDAD. PARA DISMINUIR EL RIESGO DE CORRIENTAZO, NO ABRA LA CUBIERTA. NO HAY PIEZAS ADENTRO QUE EL USUARIO PUEDE REPARAR DEJE TODO MANTENIMIENTO A LOS TECNICOS CALIFICADOS.	ATTENTION: PROTEGEZ CET APPAREIL DE LA PLUIE ET DE L'HUMIDITE. AFIN D'EVITER TOUT RISQUE D'INCENDIE OU D'ELECTROCUTION, POUR REDUIRE D'ELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPARABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN TECHNICIEN QUALIFIE.
<b>IMPORTANT SAFETY INSTRUCTIONS</b>		
<ul style="list-style-type: none"> <li>• READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS.</li> <li>• DO NOT OPERATE NEAR ANY HEAT SOURCE AND DO NOT BLOCK ANY VENTILATION OPENINGS ON THIS APPARATUS. FOR PROPER OPERATION, THIS UNIT REQUIRES 3" (75mm) OF WELL VENTILATED SPACE AROUND HEATSINKS AND OTHER AIR FLOW PROVISIONS IN THE CABINET.</li> <li>• DO NOT USE THIS APPARATUS NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS.</li> <li>• CLEAN ONLY WITH LINT-FREE DAMP CLOTH AND DO NOT USE CLEANING AGENTS.</li> <li>• ONLY CONNECT POWER CORD TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE REAR PANEL OF THE APPARATUS.</li> <li>• PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED, OR STRAINED.</li> <li>• UNPLUG THE APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.</li> <li>• ONLY USE ATTACHMENTS, ACCESSORIES, STANDS, OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY.</li> <li>• THIS APPARATUS DOES NOT OPERATE NORMALLY AND REQUIRES SERVICE WITH ANY PHYSICAL DAMAGE FROM IMPACT OR ANY EXPOSURE TO MOISTURE.</li> <li>• SERVICE MUST BE PERFORMED BY QUALIFIED PERSONNEL.</li> <li>• OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.</li> </ul>		
EXPLANATION OF GRAPHICAL SYMBOLS: EXPLICACION DE SIMBOLOS GRAFICOS: EXPLICATION DES SYMBOLES GRAPHIQUES:	 = "DANGEROUS VOLTAGE" "VOLTAJE PELIGROSO" "DANGER HAUTE TENSION"	 = "IT IS NECESSARY FOR THE USER TO REFER TO THE INSTRUCTION MANUAL" "ES NECESARIO QUE EL USUARIO SE REFIERA AL MANUAL DE INSTRUCCIONES." "REFERREZ-VOUS AU MANUAL D'UTILISATION"

**Crate continually develops new products, as well as improves existing ones. For this reason, the specifications and information in this Crate manual are subject to change without notice.**









